



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,626	05/15/2001	Harm Jan Willem Belt	PHNL 000297	9253

24737 7590 01/07/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
----------	--------------

2644

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,626

Applicant(s)

BELT ET AL.

Examiner

Laura A Grier

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>20050105</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. The indicated allowability of claim 9 is withdrawn.
2. The Final Rejection mailed on 4/7/04 has been vacated.

Claim Objections

3. Claims 7-9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 6. See MPEP § 608.01(n). Accordingly, the claims 7-9 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-6 and 10** are rejected under 35 U.S.C. 102(e) as being anticipated by Rasmusson et al., U. S. Patent No.6549627.

Regarding **claims 1 and 4**, Rasmusson et al. (herein, Rasmusson) discloses generating calibration signals for an adaptive beamformer (figures 5 and 6). Rasmusson's disclosure comprises a method and system of multiple inputs (405, and 405) coupled to an adaptive beamformer (417), which is used as acoustic echo canceller (abstract), wherein the echo canceling data is maintained in the adaptive filters (415/413) – memory, which reads kept data of

individual history of each input signal, wherein the echo data is supplied to the beamformer, which reads on combined with current adaptive beamforming data (col. 3, lines 9-20, and col. 5, lines 8-64, lines 67 - col. 7, lines 1-14).

Regarding **claims 2 and 5**, Rasmusson discloses everything claimed as applied above (see claims 1 and 4, respectively). Rasmusson discloses in figures 5 and 6 respective inputs in parallel paths containing an acoustic path and beamformer path, where the signal paths are summed with adders and processed by the adaptive filters and beamformer.

Regarding **claims 3 and 6**, Rasmusson discloses everything claimed as applied above (see claims 1 and 4, respectively). Rasmusson further discloses the beamformer as an echo canceller, thus the adaptive beamformer comprises filtering (col. 6, lines 36-41).

Regarding **claim 10**, Rasmusson discloses generating calibration signals for an adaptive beamformer (figures 5 and 6) for a hands-free environment (hands-free communication equipment) comprising a loudspeaker (401) coupled to multiple microphones (405 and 407) coupled to an adaptive beamformer (417), which is used as acoustic echo canceller (abstract), wherein the echo canceling data is maintained in the adaptive filters (415/413) – memory, which reads kept data of individual history of each input signal, wherein the echo data is supplied to the beamformer, which reads on combined with current adaptive beamforming data (col. 3, lines 9-20, and col. 5, lines 8-64, lines 67 - col. 7, lines 1-14).

Response to Arguments

6. Applicant's arguments filed 01/16/04 have been fully considered but they are not persuasive.

The applicant essentially argues that the prior art of Rasmusson et al. fails to disclose the claimed invention in regards the limitation, "... individual processing history of adaptive echo canceling data being kept based upon the input signals and combining that data with current adaptive beamforming data". In respect the broadest interpretation of the claim language, Rasmusson teaches the limitations of the claimed invention. The claim language does not limit a type of echo canceling data or a specific technique of keeping the echo data, thus the FIR adaptive filters used by Rasmusson, which are forms of memory or echo cancellers themselves supports the claimed limitation, and with the results of the filters being supplied to the beamformer, the then the echo data is combined with current adaptive beamforming data. Thus, the Rasmusson reference of prior art has been maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Laura A. Grier", is written over the printed name.

Laura A. Grier

January 5, 2005